

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
1 September 2005 (01.09.2005)

PCT

(10) International Publication Number
WO 2005/080769 A1

(51) International Patent Classification⁷: **F02B 63/04**, 63/06, F01P 3/20, F02G 5/04, F01N 5/02, 3/04, C02F 1/44

(21) International Application Number:
PCT/IT2004/000074

(22) International Filing Date: 20 February 2004 (20.02.2004)

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(25) Filing Language: Italian

(26) Publication Language: English

(71) Applicant (for all designated States except US): **BIANCHI & CECCHI S.R.L.** [IT/IT]; Via Corsica 21, I-16128 Genova (IT).

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **BIANCHI, Gianfranco** [IT/IT]; Via Corsica, 21/9, I-16128 Genova (IT).

(74) Agents: **FERRONI, Filippo** et al.; c/o Dragotti & Associati Srl, Galleria San Babila 4/C, I-20122 Milano (IT).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

Declaration under Rule 4.17:

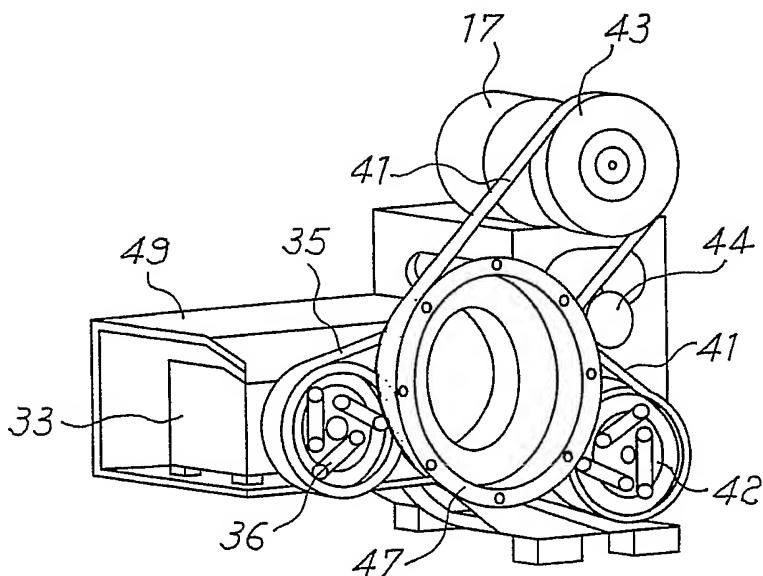
— of inventorship (Rule 4.17(iv)) for US only

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: OPERATING GROUP FOR INTEGRATED PRODUCTION OF ENERGY AND DESALINATED WATER



(57) **Abstract:** The invention concerns a multi-purpose operating unit for the combined production of electric power and desalinated water. For this purpose an internal-combustion engine (2) operates an electric generator (10), two pumps (17, 33) for conveying water coming from the outside to osmotic membranes (8, 9): along the water flow path between the first and the second pump (17, 33) the flow is split up so as to maintain predefined pressure conditions at the intake of the second pump (33). This ensures uniform operation of the latter even when there is variation in the number of revolutions of the engine.